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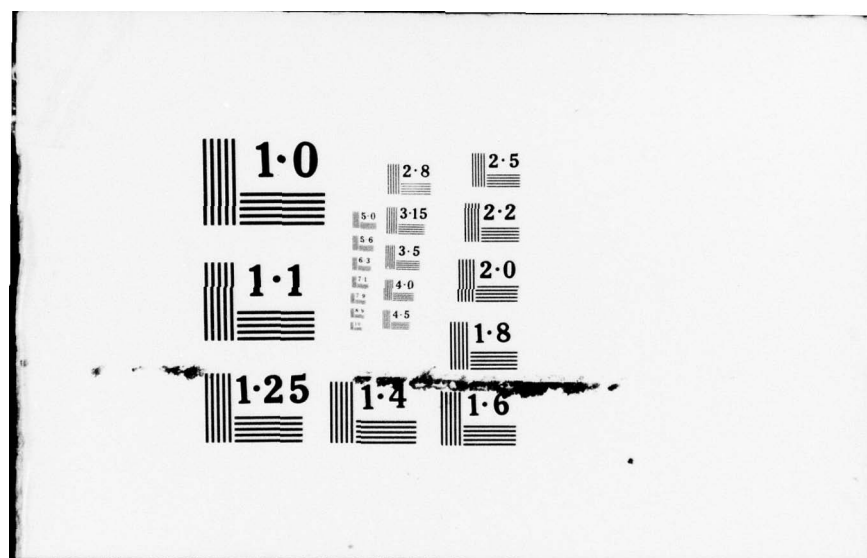
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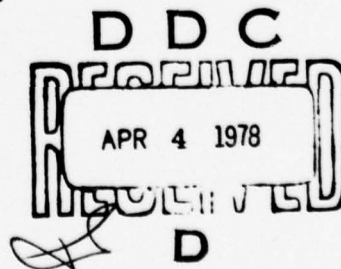
CORE SEARCH

Farley W. Spruell  
Directorate for Management Information Systems  
US Army Missile Readiness Command

PREPARED FOR  
GUIDANCE AND CONTROL DIRECTORATE  
TECHNOLOGY LABORATORY

December 1977

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20. ABSTRACT (Continue on reverse side if necessary and identify by block number) The Core Search program provides the user with a tabulation of the core storage, number of direct statements and total statements used by each program/subroutine in the weapon control computer software.		

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## I. INTRODUCTION

The Core Search program generates two types of output. The first type is generated by the search by functional area; the second is generated by the search by book section. The output from the different sections presents the information in a table format.

The search by functional area section scans the input tape looking for certain key words such as PROGRAM ID, NUMBER OF DIRECT, ORIGIN, etc. As each key word is located, the pertinent information is stored for output and later use by the next section of the program.

The search by book section takes the data located by the first section and sorts it into the necessary order for printing.

### A. Search by Functional Areas

The Core Search program scans an output tape (print tape) from a build compilation for the following items:

- 1) Program ID.
- 2) Compool used.
- 3) Program size.
- 4) Local storage used.
- 5) Origin.
- 6) Number of direct statements.
- 7) Total number of statements (jovial and direct).
- 8) Ratio of direct statements to total statements.
- 9) Book number containing the software listing.

These data are then listed in tables broken down into the nine functional areas as follows:

- 1) Real-time control.
- 2) Data collection.
- 3) Surveillance.
- 4) Initialization.
- 5) Display.
- 6) Guidance.
- 7) EDWA II.
- 8) Communications.
- 9) Identification friend or foe.

A group labelled test drivers is used for all software that is not part of the nine functional areas. After all the functional areas are tabulated, a final summary table is printed which contains the sum of all direct code statements, total statements, and ratio of direct to total statements, and ratio of direct to total statements for each functional area. Appendix B contains an example of this output.

#### B. Search by Book

The data used to generate the tables of data in the search by functional area section are sorted by book number. The results of the sort yield a table which contains a list of all the software contained in each book. This listing is very useful when the listing of a particular subroutine is desired. The user can scan the contents of each book until it is found, then go to that book for the desired software compilation. Appendix C contains an example of this output.

### II. INPUT

The first card read contains the build number associated with the input tapes to be read. This program requires one card per input tape. The card is read by an A6,4X,10I5 format. The first six characters contain the magnetic tape number. This tape was created during a weapon control computer (WCC) software build compilation. The remaining inputs on the card are book numbers which are contained on the tape. Each book is contained in one file on the tape. A maximum of ten books is allowed. A program modification would be required to permit more than ten books per tape. A blank or zero book number signals the program that all books on a tape have been processed. A negative book numbers signals the program to skip one file. This option allows the user to skip files that have bad records, short records, parity errors, and/or other errors. Examples of the input cards are as follows:

M00258 66666666636666566668	Reads tape M00258. Contains books 3, 5, and 8.
M00500 6666666610666-166610	Skips second file on tape M00500.

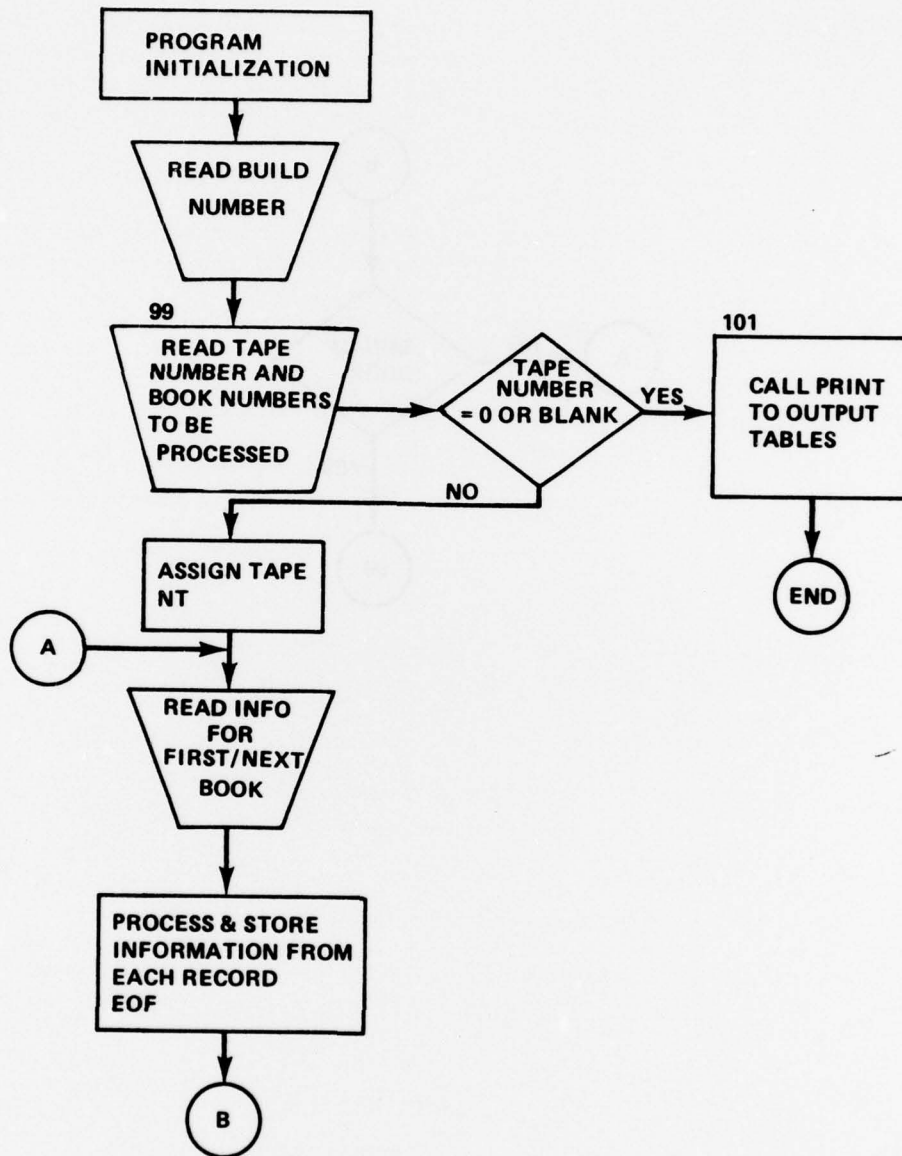
### III. OUTPUT

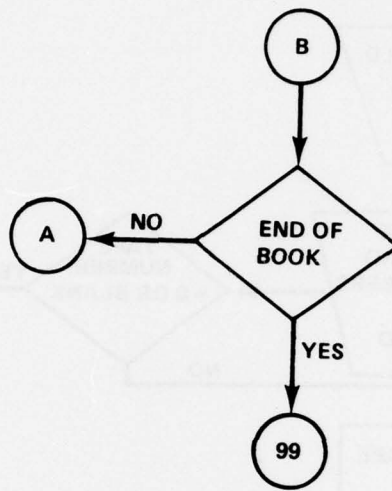
The output formats are contained in Appendices B and C.

### IV. GENERAL FLOWCHART

The general flow chart is as follows:

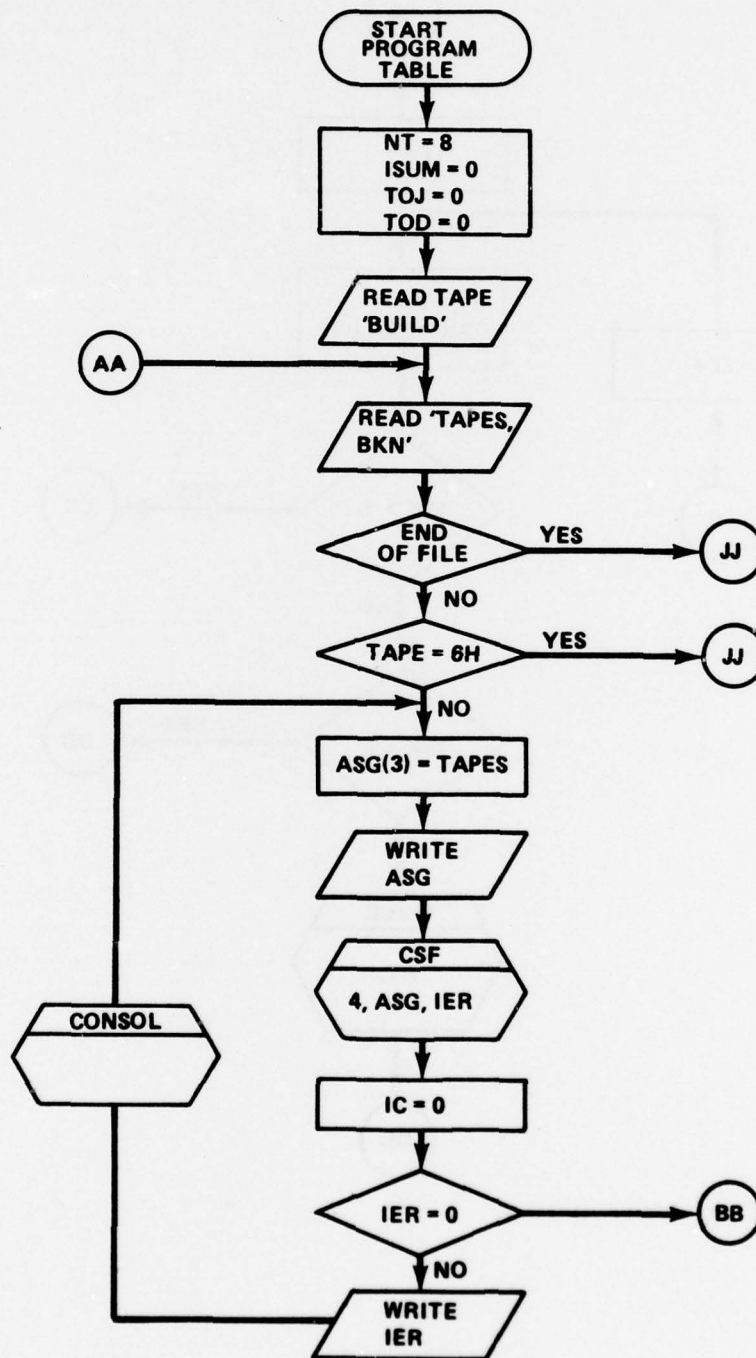


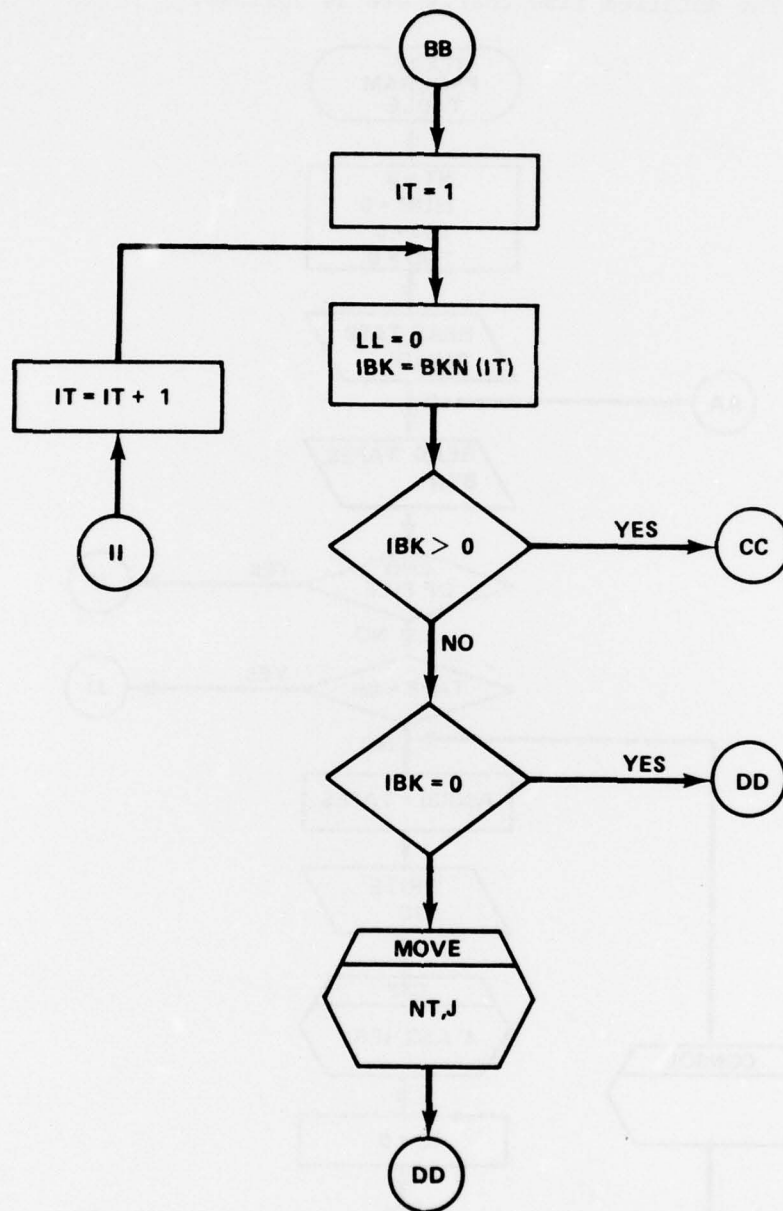




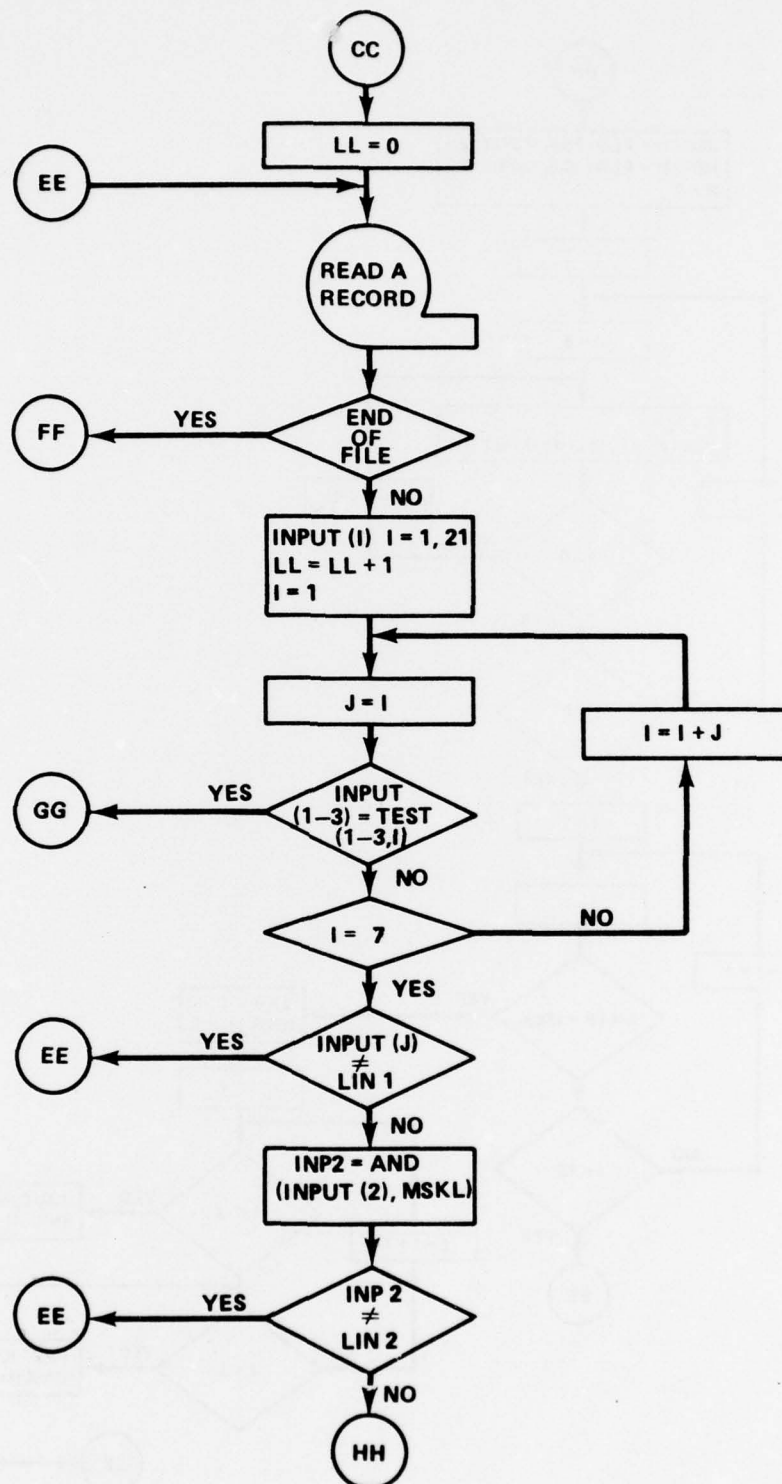
## V. DETAILED FLOWCHARTS

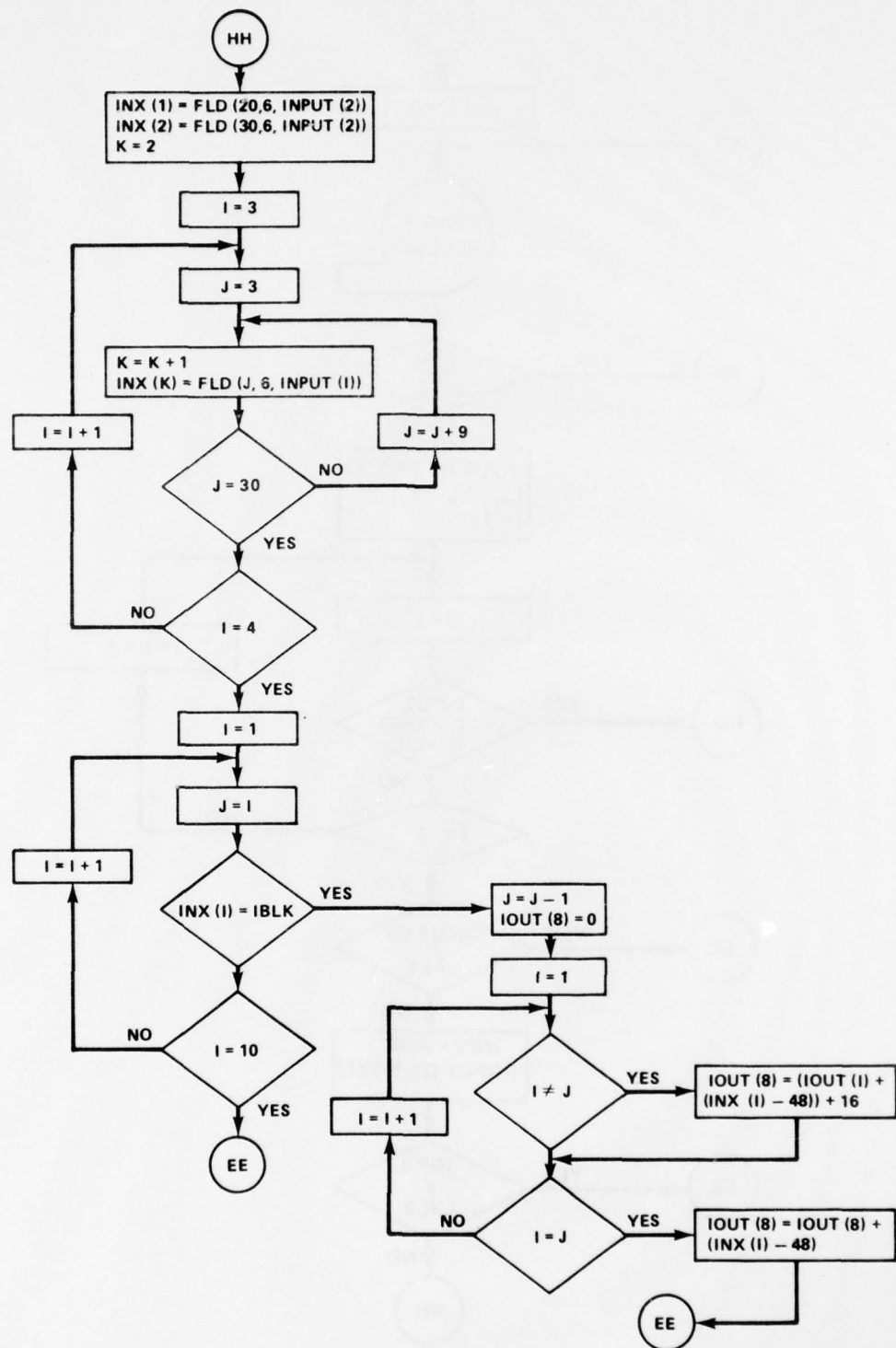
The detailed flow charts are as follows:

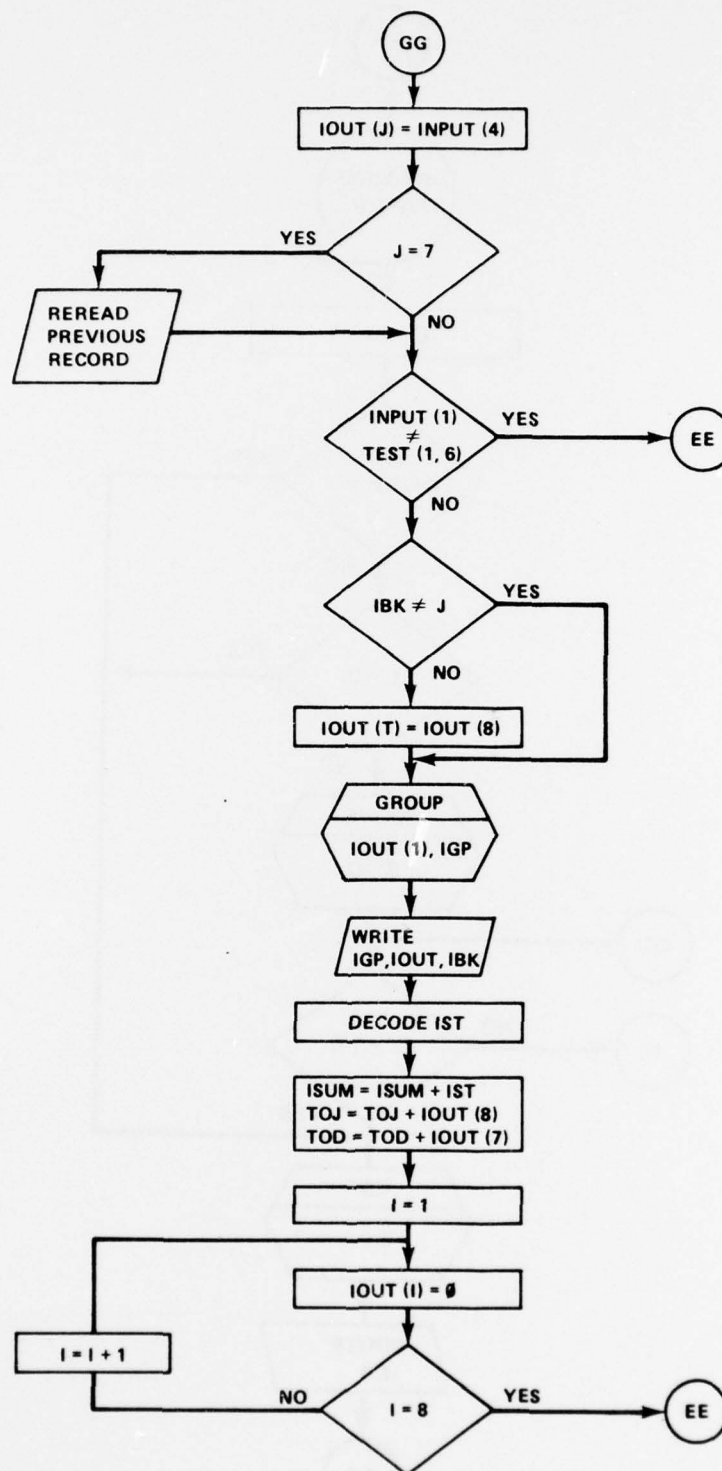




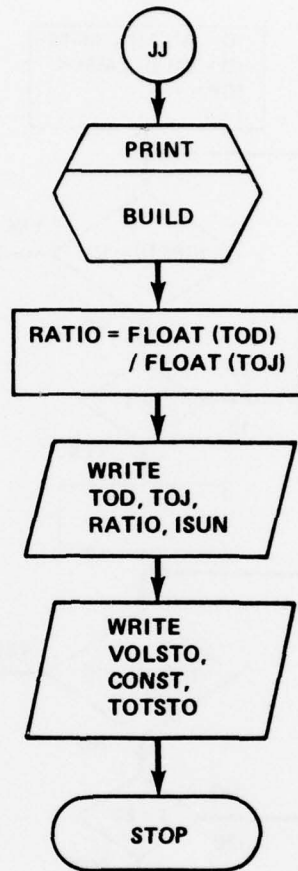


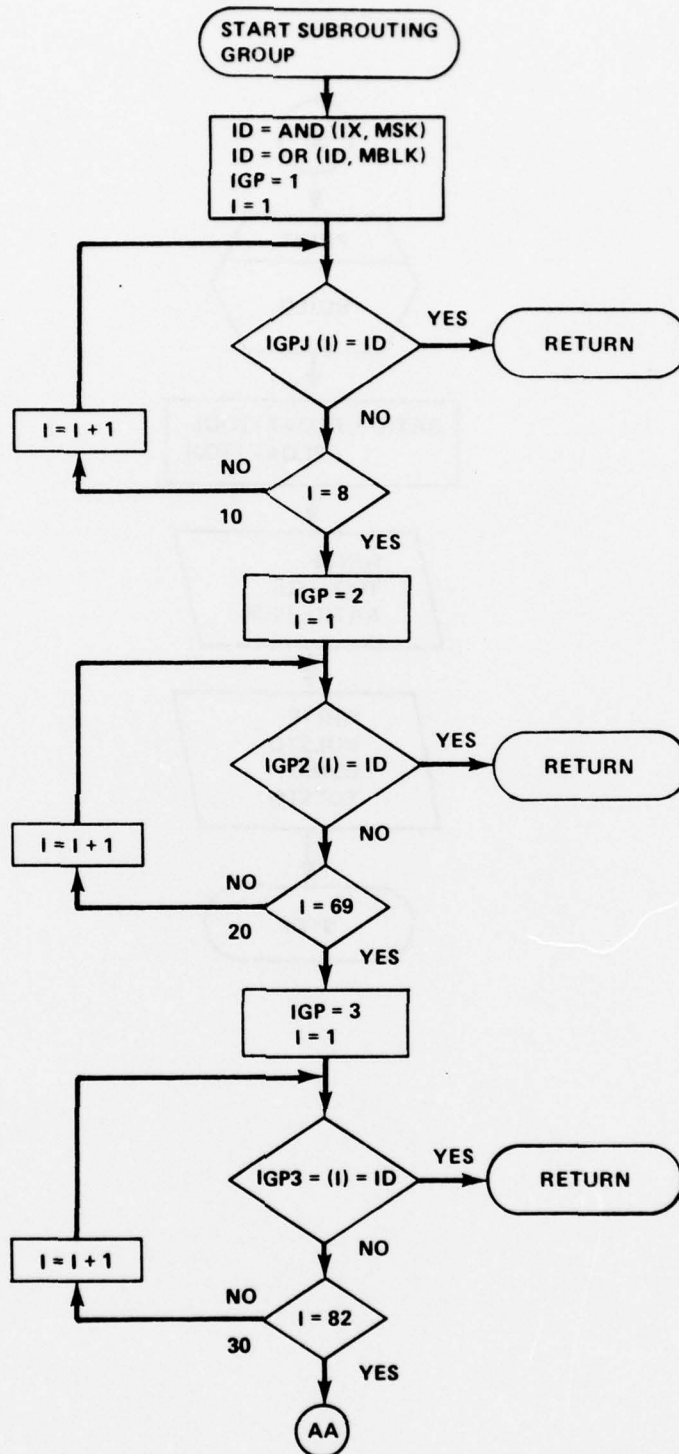




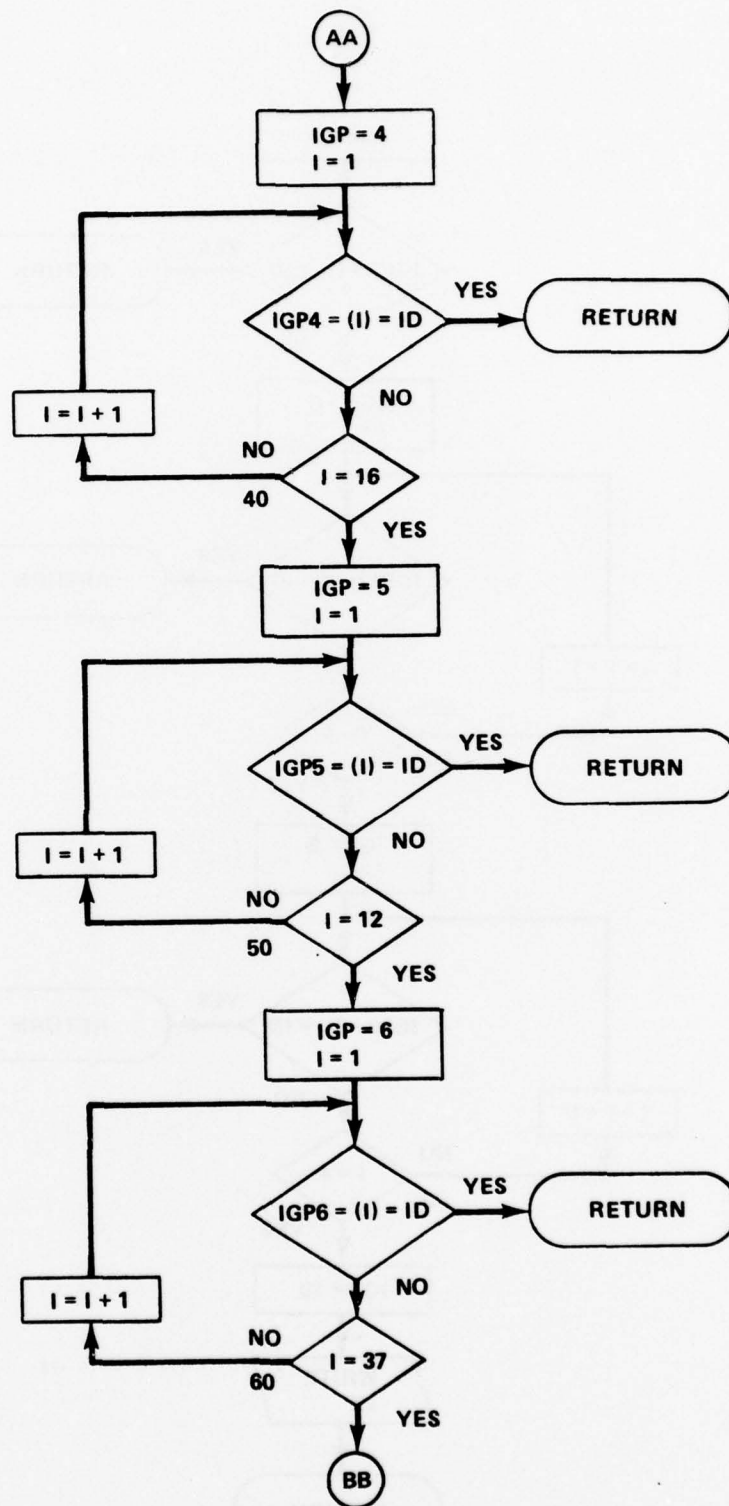


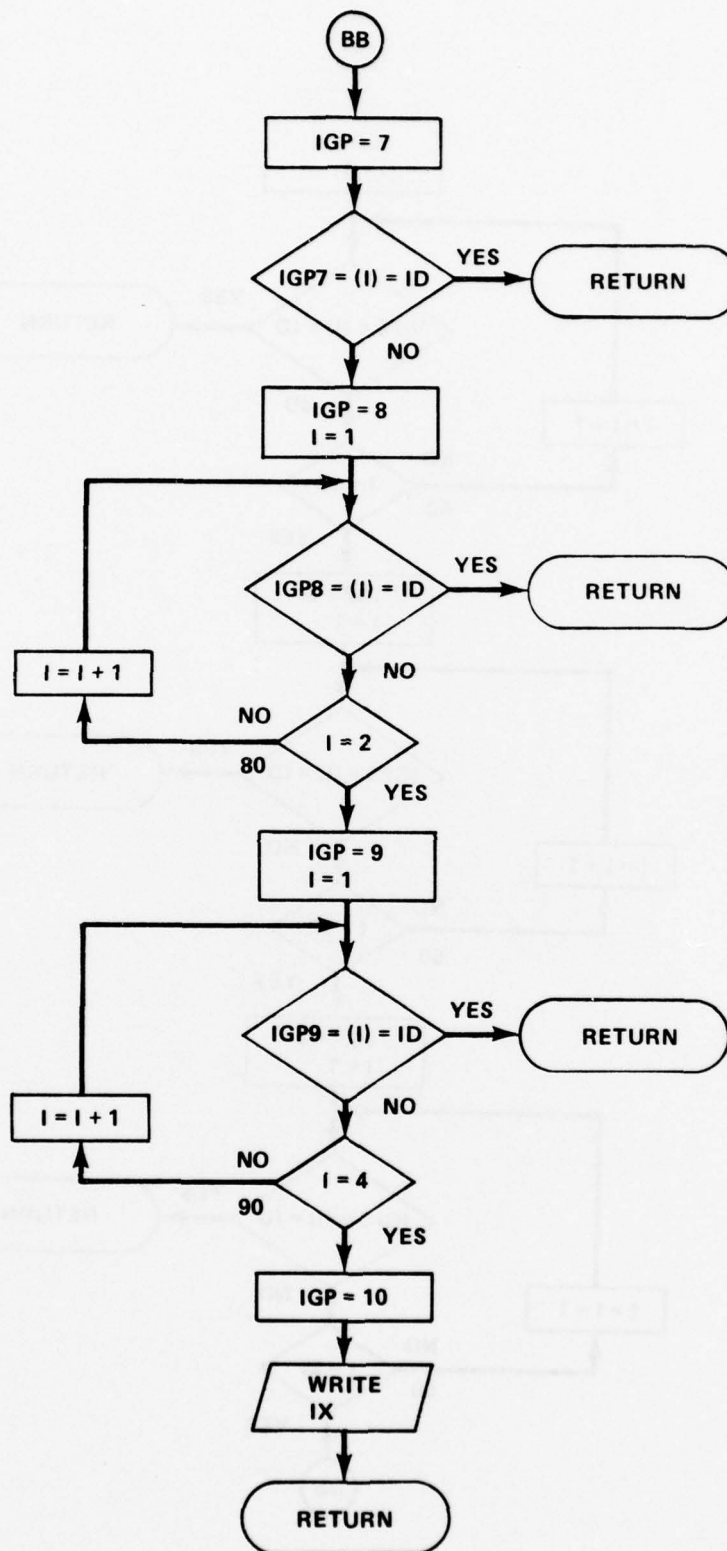




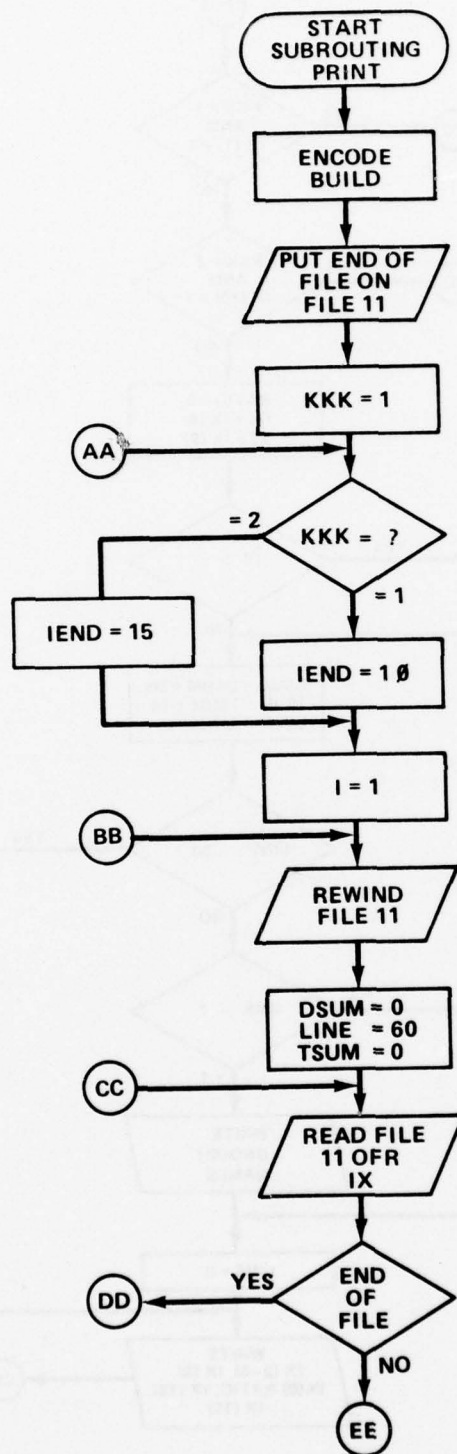


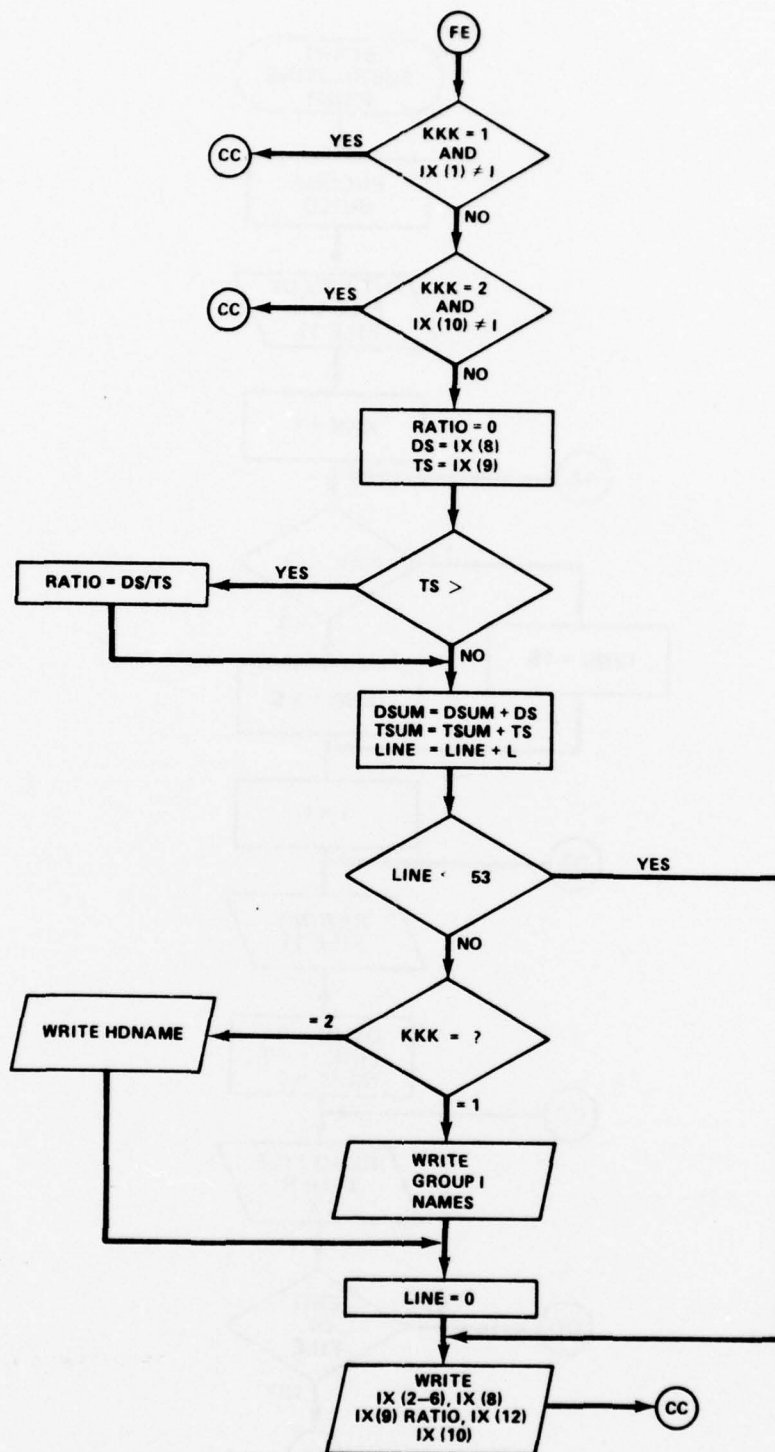


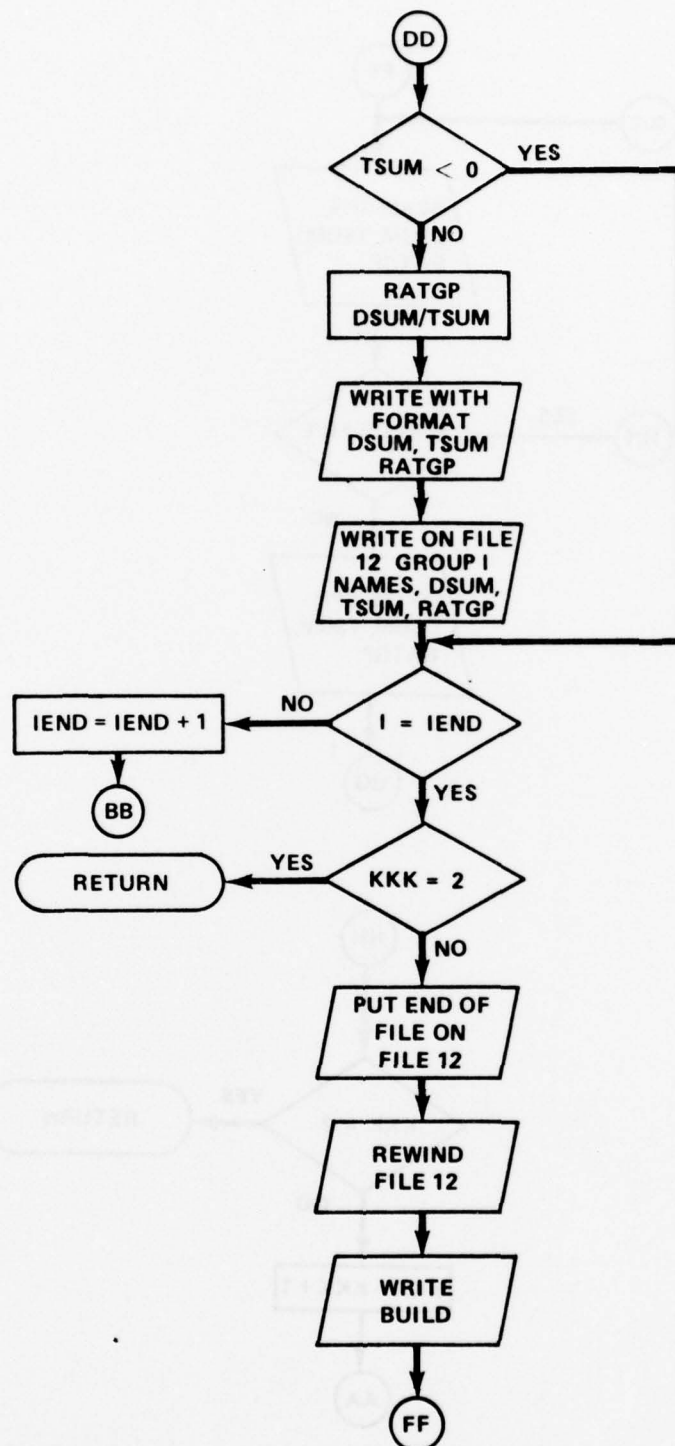


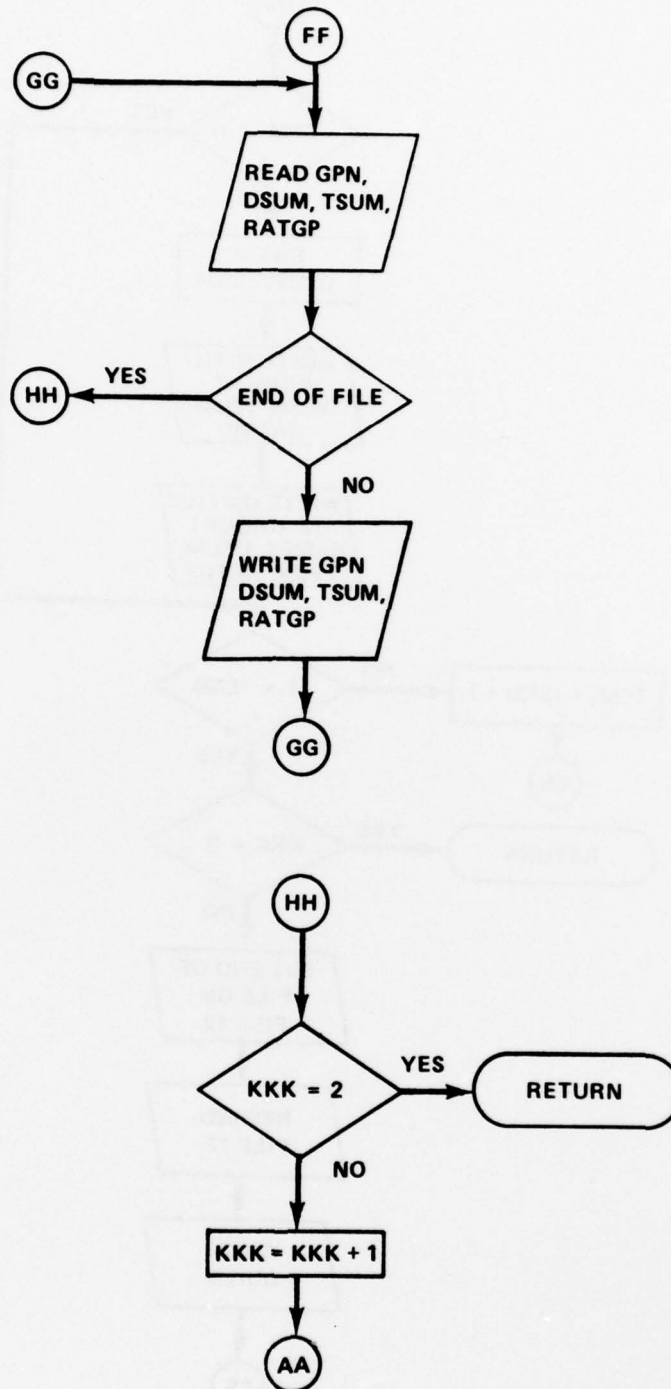












Appendix A. PROGRAM LISTING

"FOR,IS	TABLE	CSH001
C	TABLE PREPARES A TABLE OF THE CORE LOCATIONS AND LOCAL STORAGE	CSH002
C	REQUIRED BY EACH UNIT OF A BUILD.	CSH003
	IMPLICIT INTEGER ( A-Z )	CSH004
	REAL RATIO	CSH005
	DATA VOLSTG/16519/,CONST/54566/	CSH006
	DIMENSION ASG(4),BKN(10)	CSH007
	DIMENSION TEST(3,7),INPUT(21), IOUT(9)	CSH008
	DIMENSION INX(10)	CSH009
	LOGICAL FIRST /.TRUE./	CSH010
	DATA LIN1,LIN2,MSKL/D114111116105,0123072000000,07777777000000/	CSH011
	DATA IDLK/D000000000000000/	CSH012
	DATA IOUT /B*P/	CSH013
	DATA WUND1 /07777777777777 /	CSH014
	DATA TEST / BHPROGRA,6HM ID ,6H ,	CSH015
1	BHCOMPDD,6HL ID ,6H ,	CSH016
2	BHPROGRA,6HM SIZE,6H ,	CSH017
3	BHLOCAL ,6HSTOR. ,6HSIZE ,	CSH018
4	BHORIGIN,6H ,6H ,	CSH019
5	BHBEGIN ,6HADDRES,6HS ,	CSH020
6	BHNUMBER,6H OF DI,6HRECT J /	CSH021
	DATA ASG /1"ASG,T 8,T, . 1/	CSH022
	DATA ISKP/0/	CSH023
C		CSH024
	NT=0	CSH025
	ISUM=0	CSH026
	TOJ=0	CSH027
	TOD=0	CSH028
	READ(5,500) BUILD	CSH029
999	READ(5,499,END=101)TAPES,BKN	CSH030
	WRITE(6,900) TAPES,BKN	CSH031
900	FORMAT(5HX,46,4X,10I5)	CSH032
499	FORMAT(A0,4X10I5)	CSH033
	IF(TAPES .EQ. 6H ) GO TO 101	CSH034
	IF(FIRST) GO TO 2	CSH035
	CALL CSF(3,1"FREE,S 8. . 1,IER)	CSH036
C	WRITE(5,600) IER	CSH037
	WRITE(6,600) IER	CSH038
2	ASG(3)=TAPES	CSH039
	FIRST=.FALSE.	CSH040
	WRITE(6,501) ASG	CSH041
	CALL CSF(4,ASG,IER)	CSH042
	IC=0	CSH043
	IF(IER.EQ. 0) GO TO 12	CSH044
C	WRITE(6,600) IER	CSH045
	CALL CONSOL(43,WHEN TAPE DRIVE BECOMES AVAILABLE, RETURN A1,6,	CSH046
	* IRET)	CSH047
	GO TO 2	CSH048
12	CONTINUE	CSH049
C		CSH050
	DO 100 IT=1,10	CSH051
	LL=0	CSH052
	IBK=BKN(IT)	CSH053
	IF(IBK .GT. 0) GO TO 3	CSH054
	IF(IBK.EQ.0) GO TO 100	CSH055
	CALL MOVE(NT,1)	CSH056
	GO TO 100	CSH057
3	LL=0	CSH058
C		CSH059



1	CONTINUE	CSH060
	READ(NT,SAC,END=14) (INPUT(I),I=1,21)	CSH061
	LL=LL+1	CSH062
	DO 5 I=1,7	CSH063
	J=1	CSH064
	IF(INPUT(1).EQ. TEST(1,I).AND. INPUT(2).EQ. TEST(2,I).AND.	CSH065
	* INPUT(3).EQ. TEST(3,I)) GO TO 8	CSH066
5	CONTINUE	CSH067
	IF(INPUT(1).NE. LIN1) GO TO 1	CSH068
	INP2=AND(INPUT(2),MSKL)	CSH069
	IF(INP2.NE. LIN2) GO TO 1	CSH070
	INX(1)=FLD(21,6,INPUT(2))	CSH071
	INX(2)=FLD(30,6,INPUT(2))	CSH072
	K=2	CSH073
	DO 700 I=3,4	CSH074
	DO 700 J =3,30,9	CSH075
	K=K+1	CSH076
	INX(K)=FLD(J,6,INPUT(I))	CSH077
700	CONTINUE	CSH078
	DO 6 I=1,10	CSH079
	J=1	CSH080
	IF(INX(I).EQ. IBLK) GO TO 7	CSH081
6	CONTINUE	CSH082
	GO TO 1	CSH083
7	J=J+1	CSH084
	DO 705 I=1,J	CSH085
	IDOUT(8)=0	CSH086
	IF(I.NE. J) IDOUT(8)=(IDOUT(8)+(INX(I)-48))*10	CSH087
	IF(I.EQ. J) IDOUT(8)=IDOUT(8) +(INX(I)-48)	CSH088
705	CONTINUE	CSH089
	GO TO 1	CSH090
8	IDOUT(J)=INPUT(4)	CSH091
	IF(J.NE. 3) GO TO 707	CSH092
	IDOUT(J)=INPUT(6)	CSH093
	IDOUT(9)=INPUT(4)	CSH094
707	CONTINUE	CSH095
	IF(J.EQ. 7) READ(30,503) IDOUT(J)	CSH096
	IF(INPUT(1).NE. TEST(1,6)) GO TO 1	CSH097
	IF(IBK.NE.1) GO TO 710	CSH098
	IDOUT(7)=IDOUT(8)	CSH099
710	CONTINUE	CSH100
	CALL GROUP(IDOUT(1),IGP)	CSH101
	WRITE(11) IGP, IDOUT, IBK	CSH102
	DECODE(8,506, IDOUT(3), NC, ERR=4) IST	CSH103
4	CONTINUE	CSH104
	ISUM=ISUM+IST	CSH105
	TOJ=TOJ+IDOUT(8)	CSH106
	TOD=TOD+IDOUT(7)	CSH107
	DO 9 I=1,8	CSH108
9	IDOUT(I)=0	CSH109
	GO TO 1	CSH110
C		CSH111
10	CONTINUE	CSH112
	RE=IND 8	CSH113
70	IC=IC+1	CSH114
	IF(BKN(11+1).EQ. 0) GO TO 80	CSH115
	IF(LL.EQ. 0) GO TO 80	CSH116
	CALL MOVE(8,IC)	CSH117
100	CONTINUE	CSH118
	GO TO 999	CSH119

00	CONTINUE		CSH120
101	CONTINUE		CSH121
	ENDFILE 11		CSH122
	CALL PRINT(BUILD)		CSH123
	RATIO=FLOAT(TOD)/FLOAT(TOJ)		CSH124
	WRITE(6,004) TOD,TOJ,RATIO		CSH125
	TOTSTO=ISUM+VOLSTO+CONST		CSH126
	WRITE(6,005) ISUM		CSH127
	WRITE(6,012) VOLSTO,CONST,TOTSTO		CSH128
500	FORMAT( 21A6)		CSH129
501	FORMAT(1X,21A6)		CSH130
502	FORMAT(12A6)		CSH131
503	FORMAT(44X,110)		CSH132
504	FORMAT(306,1003)		CSH133
505	FORMAT(5X,A1)		CSH134
506	FORMAT(10)		CSH135
600	FORMAT(1M1/5X,7HPROGRAM,2X,'LOMPOOL SIZE LOC STORAGE ORIGIN'		CSH136
	1 ' BEGIN ADDRESS DIR STAT JOV STAT BOOK NO. '/')		CSH137
601	FORMAT(5X,A6,4X,A6,1X,A6,3X,A6,5X,A6,5X,A6,4X,4I10/)		CSH138
602	FORMAT(' END OF FILE REACHED ', 16)		CSH139
603	FORMAT(5X,'IcR= '13)		CSH140
604	FORMAT(20X,'TOTALS',20X,16,4X,16,1X,F10,3//)		CSH141
605	FORMAT(' THE FOLLOWING SUMMARY IS FOR THE ',A3,' BUILD CONTAINED	CSH142	
	'N THE FOLLOWING TAPES',5X,10A6)	CSH143	
608	FORMAT(1M+,120X,1M. )	CSH144	
609	FORMAT(19X,' TOTAL STORAGE USED BY WCC SOFTWARE	' 18) CSH145	
610	FORMAT(1X,4012)	CSH146	
611	FORMAT(1X,10013)	CSH147	
612	FORMAT(19X,' VOLATILE STORAGE FROM DRINDIX/K6EN0F	' 18/ CSH148	
	* 19X,' PROGRAM CONSTANTS FROM K6-10 CORE MAP	' 18/ CSH149	
	* 19X,' TOTAL STORAGE REQUIRED	' 18) CSH150	
901	FORMAT(1X,215,1X,A6)	CSH151	
	END	CSH152	
*FOR,15	GROUP	CSH153	
	SUBROUTINE GROUP (IX,IGP)	CSH154	
	DIMENSION IGP1(4),IGP2(71),IGP3(82),IGP4(16), IGP5(12),IGP6(37),	CSH155	
	1IGP7(1),IGP8(2),IGP9(4),IGP10(18)	CSH156	
C	REAL TIME CONTROL SYSTEM SOFTWARE	GROUP 1 CSH157	
C		CSH158	
	DATA IGP1 / 4HMXED, 4HEMCA, 4HCSEC, 4HSSRP, 4HSSRT, 4HTWIG ,	CSH159	
	* 4HGD03, 4HGOK7 /	CSH160	
C	DATA COLLECTION SOFTWARE	GROUP 2 CSH161	
C		CSH162	
	DATA IGP2 / 4HDCAA, 4HDCDR, 4HDCFB, 4HDCEN, 4HDCFP, 4HDCLG,	CSH163	
	* 4HDCMU, 4HDCMG, 4HDCMU, 4HDCPR, 4HDCRG, 4HDCRR, 4HDCSI,	CSH164	
	* 4HDCSP, 4HDCIA, 4HDEDH, 4HDCOT, 4HDFSC, 4HDCDE, 4HDCBR,	CSH165	
	* 4HDKSF, 4HDSKH, 4HDSHM, 4HDTDR, 4HDSPP, 4HDTGN, 4HDSPP,	CSH166	
	* 4HDCMC, 4HDCRT, 4HDCR, 4HDTGN, 4HDCPT, 4HDCIH, 4HDCRL,	CSH167	
	* 4HDC01, 4HDC02, 4HDC03, 4HDC04, 4HDC05, 4HDC06, 4HDC07,	CSH168	
	* 4HDC08, 4HDC09, 4HDC10, 4HDC11, 4HDC12, 4HDC13, 4HDC14,	CSH169	
	* 4HDC15, 4HDC16, 4HDC17, 4HDC18, 4HDC19, 4HDC20, 4HDSPP,	CSH170	
	* 4HDCAR, 4HDCAS, 4HDCFF, 4HDCMF, 4HDCRQ, 4HDC23, 4HDSDR,	CSH171	
	* 4HMCIL, 4HDSPP, 4HDCDM, 4HDCDR, 4HDCNT, 4HDMWL, 4HDMDR ,	CSH172	
	* 4HDCIV, 4HDC26 /	CSH173	
C	SURVEILLANCE OPERATIONAL SOFTWARE	GROUP 3 CSH174	
C		CSH175	
	DATA IGP3 / 4HMRAP, 4HMRMS, 4HRIOP, 4HROVL, 4HRARE, 4HRAOP,	CSH176	
	* 4HAFIL, 4HALPR, 4HRFIL, 4HBIDR, 4HCMUP, 4HCORL, 4HFSCL,	CSH177	
	* 4HNTTA, 4HNOVAL, 4HQINT, 4HQFRM, 4HQNAP, 4HNTTR, 4HSMRM,	CSH178	
	* 4HSMRR, 4HSMCH, 4HSMUR, 4HSMIR, 4HSMAB, 4HFSMC, 4HCJVL,	CSH179	



	* 4HCJUP, 4HNCJV, 4HNCJU, 4HRVAL, 4HREUP, 4HRACQ, 4HME02,	CSH180
	* 4HMEV3, 4HME1W, 4HME26, 4HME33, 4HRA11, 4HRA13, 4HRA14,	CSH181
	* 4HKA10, 4HRE10, 4HRE29, 4HSE32, 4HSE38, 4HTRX1, 4HTRX2,	CSH182
	* 4HTRX3, 4HTRX4, 4HTR18, 4HTR31, 4HNA48A, 4HNC62, 4HTD52,	CSH183
	* 4HTD53, 4HTDX5, 4HTUX6, 4HTDX7, 4HAC65, 4HAC66, 4HAC68,	CSH184
	* 4HAC70, 4HAC71, 4HC56A, 4HC56B, 4HCR59, 4HC64A, 4HTOLD,	CSH185
	* 4HSMFR, 4HSCON, 4HRDAP, 4HTRAP, 4HNA45, 4HSTRP, 4HTA55,	CSH186
	* 4HN48C, 4HN49A, 4HNTRK, 4HECCM,	CSH187
	* 4HRP72, 4HP73B /	CSH188
C	INITIALIZATION SOFTWARE GROUP 4	CSH189
C	DATA IGP4 / 4HCOK6, 4HK6BF, 4HK6DC, 4HK6EN, 4HK6TC, 4HK6PL,	CSH190
	* 4HK6DF, 4HK5CF, 4HK7EN, 4HK5ND, 4HK7DC, 4HK7TC, 4HK5SM,	CSH191
	* 4HK5SU, 4HK5EF, 4HK5PL /	CSH192
C	DCIP DISPLAY AND CONTROL SOFTWARE GROUP 5	CSH193
C	DATA IGP5 / 4HHOOK, 4HDISH, 4HDSIT, 4HDTAB, 4HDMES, 4HDTGT,	CSH194
	* 4HDSPP, 4HDSP1, 4HDMOP, 4HDMDE, 4HDMDC,	CSH195
	* 4HDASP /	CSH196
C	GUIDANCE SOFTWARE GROUP 6	CSH197
C	DATA IGP6 / 4HPLGC, 4HLASA, 4HGIDI, 4HULNK, 4HSKIP, 4HDNLK,	CSH198
	* 4HUSAP, 4HMFIL, 4HGIDM, 4HFUSE, 4HSAPB, 4HMCOD, 4HPRIS,	CSH199
	* 4HCUGC, 4HCURL, 4HCUPY, 4HDNCL, 4HDTMA, 4HDTMT, 4HLFIL,	CSH200
	* 4HSHIL, 4HGD05, 4HTGDB, 4HTGDI, 4HTFIL, 4HTJKF, 4HOBHJ,	CSH201
	* 4HOB TJ, 4HPIGO, 4HGD01, 4HGD02, 4HHD03, 4HGD04, 4HMTML,	CSH202
	* 4HEFTM, 4HERCK, 4HTGDA /	CSH203
C	GDWA II SOFTWARE GROUP 7	CSH204
C	DATA IGP7 / 4HEDW2 /	CSH205
C	COMMUNICATIONS CONTROL SOFTWARE GROUP 8	CSH206
C	DATA IGP8 / 4HF2CC, 4HF1CC /	CSH207
C	IDENTIFICATION FRIEND OR FOE SOFTWARE GROUP 9	CSH208
C	DATA IGP9 / 4HIFOR, 4HIFFR, 4HIFCS, 4HIFRP /	CSH209
C	ENGAGEMENT CONTROL SOFTWARE GROUP 10	CSH210
C	DATA IGP10 / 4HEHIT, 4HEVAL, 4HECEL, 4HEDCN, 4HEFES, 4HEHSI,	CSH211
	* 4HELGU, 4HELNP, 4HETFL, 4HETHC, 4HETPU, 4HEVLC, 4HTBQA,	CSH212
	* 4HTBQG, 4HTBQK, 4HTBGR, 4HTBDU, 4HTBQD /	CSH213
	DATA MSK/077777770000/, MBLK/0000000000505/	CSH214
	ID= AND(IX,MSK)	CSH215
	ID= OR(ID,MBLK)	CSH216
	IGP=1	CSH217
	DO 10 I=1,6	CSH218
	IF(IGP1(I).EQ.ID) RETURN	CSH219
10	CONTINUE	CSH220
	IGP=2	CSH221
	DO 20 I=1,71	CSH222
	IF(IGP2(I).EQ.ID) RETURN	CSH223
20	CONTINUE	CSH224
	IGP=3	CSH225
	DO 30 I=1,82	CSH226
	IF(IGP3(I).EQ.ID) RETURN	CSH227
30	CONTINUE	CSH228
	IGP=4	CSH229
	DO 40 I=1,16	CSH230
	IF(IGP4(I).EQ.ID) RETURN	CSH231
40	CONTINUE	CSH232
		CSH233
		CSH234
		CSH235
		CSH236
		CSH237
		CSH238
		CSH239

IGP =5	CSH240
DO 54 I=1,12	CSH241
IF(IGP5(I).EQ.ID) RETURN	CSH242
50 CONTINUE	CSH243
IGP =6	CSH244
DO 60 I=1,37	CSH245
IF(IGP6(I).EQ.ID) RETURN	CSH246
60 CONTINUE	CSH247
IGP =7	CSH248
IF(IGP7(I).EQ.ID) RETURN	CSH249
IGP =8	CSH250
DO 80 I=1,2	CSH251
IF(IGP8(I).EQ.ID) RETURN	CSH252
80 CONTINUE	CSH253
IGP =9	CSH254
DO 90 I=1,4	CSH255
IF(IGP9(I).EQ.ID) RETURN	CSH256
90 CONTINUE	CSH257
IGP=10	CSH258
DO 95 I=1,18	CSH259
IF(IGP10(I).EQ.ID) RETURN	CSH260
95 CONTINUE	CSH261
IGP=11	CSH262
WRITE(6,100)IX	CSH263
100 FORMAT(5X,'***** NO GROUP NUMBER FOUND FOR 1A6)	CSH264
RETURN	CSH265
END	CSH266
*FOR,IS PRNT	CSH267
SUBROUTINE PRNT(BUILD)	CSH268
DIMENSION GPN(3),MDNAM(3)	CSH269
DIMENSION IX(11),GROUPI(3,11)	CSH270
DATA(GROUPI(I,1),I=1,3)/ 6HREAL T,6HIME CO,6HNTROL /	CSH271
DATA(GROUPI(I,2),I=1,3)/ 6HDATA C,6HOLLECT,6HION /	CSH272
DATA(GROUPI(I,3),I=1,3)/ 6HSURVEI,6HLLANCE,6H /	CSH273
DATA(GROUPI(I,4),I=1,3)/ 6HINITIL,6HIZATIO,6HN /	CSH274
DATA(GROUPI(I,5),I=1,3)/ 6HDCIP D,6HISPLAY,6H CONTR /	CSH275
DATA(GROUPI(I,6),I=1,3)/ 6HGUIDAN,6HCE ,6H /	CSH276
DATA(GROUPI(I,7),I=1,3)/ 6HEDWA I,6HI ,6H /	CSH277
DATA(GROUPI(I,8),I=1,3)/ 6HCOMMUN,6HICATIO,6HNS /	CSH278
DATA(GROUPI(I,9),I=1,3)/ 6HID FRI,6HEND OR,6H FOE /	CSH279
DATA(GROUPI(I,10),I=1,3)/ 6HENGAGE,6HMENT C,6HONTROL /	CSH280
DATA(GROUPI(I,11),I=1,3)/ 6HTEST D,6HRIVERS,6H /	CSH281
DATA MDNAM/6H B,6HUILD B,6HY BOOK /	CSH282
ENCODE(3,99,MDNAM(1))BUILD	CSH283
99 FORMAT(A3)	CSH284
END FILE 11	CSH285
DO 40 KKK=1,2	CSH286
IF(KKK.EQ. 1) IEND=11	CSH287
IF(KKK.EQ. 2) IEND=15	CSH288
DO 30 I=1,IEND	CSH289
REWIND 11	CSH290
OSUM =0	CSH291
LINES = 60	CSH292
TSUM =0	CSH293
5 READ (11,END=20 )IX	CSH294
IF(KKK .EQ. 1 .AND. IX(1) .NE. 1) GO TO 5	CSH295
IF(KKK .EQ. 2 .AND. IX(11) .NE. 1) GO TO 5	CSH296
RATIO=0.	CSH297
OS=IX(8)	CSH298
TS=IX(9)	CSH299

IF(TS.GT.0.)RATIO= DS/TS	CSH300
DSUM=DSUM + DS	CSH301
TSUM=TSUM + TS	CSH302
LINES=LINES + 1	CSH303
IF(LINES.LE.53 )GO TO 10	CSH304
IF(KKK .EQ. 1) WRITE(6,100)(GROUPI(J,1),J=1,3)	CSH305
IF(KKK .EQ. 2) WRITE(6,100) HDNAM	CSH306
100 FORMAT(1H1,40X,3A6//5X,' PROGRAM COMPOOL SIZE DEC SIZE OCT	CSH307
*LOC STOR ORIGIN DIR STAT TOT STAT RATIO D/T BOOK NO. ')	CSH308
LINES=0	CSH309
10 CONTINUE	CSH310
WRITE(6,110)(IX(J),J=2,6),IX(8),IX(9),RATIO,IX(11),IX(10)	CSH311
110 FORMAT(9X,A6,4X,A6,4X,A6,10X,4X,A6,4X,A6,2I10,F10.3,I10,T40,A6)	CSH312
GO TO 5	CSH313
20 IF(TSUM .LE. 0.0) GO TO 30	CSH314
RATGP=DSUM/ TSUM	CSH315
WRITE(6,121) DSUM,TSUM	CSH316
121 FORMAT(/5X,' TOTAL DIRECT STATEMENTS IN THIS SECTION IS ',F8.0//	CSH317
* 5X,' TOTAL STATEMENTS IN THIS SECTION IS ' F8.0)	CSH318
WRITE (6,122) RATGP	CSH319
120 FORMAT(/5X'THE RATIO OF DIRECT STATEMENTS TO TOTAL STAEMENTS IS'	CSH320
12X,F3.3)	CSH321
WRITE(12)(GROUPI(J,1),J=1,3),DSUM,TSUM,RATGP	CSH322
30 CONTINUE	CSH323
IF(KKK.EQ. 2) RETURN	CSH324
END FILE 12	CSH325
REWIND 12	CSH326
WRITE(6,130) BUILD	CSH327
130 FORMAT(1H1,34X,'GROUP SUMMARY TABLE FOR ',A3,' BUILD '//	CSH328
1 20X,'GROUP NAME',15X,'DIR STAT TOT STAT RATIO D/T'//)	CSH329
35 CONTINUE	CSH330
HEAD(12,END=40)GPN,DSUM,TSUM,RATGP	CSH331
WRITE(6,140)GPN,DSUM,TSUM,RATGP	CSH332
GO TO 35	CSH333
140 FORMAT(20X,3A6,5X,2F10.0,F10.3//)	CSH334
40 CONTINUE	CSH335
RETURN	CSH336
END	CSH337

## **Appendix B. SEARCH BY FUNCTIONAL AREA OUTPUT**

DATE 010678

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GUIDANCE

PROGRAM	COMPUOL	SIZE	DEC	SIZE	LOC	STOR	ORIGIN	DIR	STAT	TOT	STAT	RATIO	D/T	BOOK	NO.
EFIN0A	CPROD		35	000043	000021	143277	49	143277	49	1.000	1	1.000		1	
PLGCL	CPROD	2274	004342	000135	000135	144201	25	144201	25	1006	2	.025		2	
WLNK0	CPROD	1255	002347	000070	000070	150543	117	150543	117	1227	2	.095		2	
LAS00	CPROD	506	000772	000053	000053	152113	60	152113	60	372	2	.161		2	
GLJ10L	CPROD	376	000572	000043	000043	154105	14	154105	14	201	2	.070		2	
MFIL0L	CPROD	1159	002207	000136	000136	154700	68	154700	68	593	2	.115		2	
SKUP0A	CPROD	209	000415	000027	000027	157107	68	157107	68	234	2	.291		2	
UGCL0C	CPROD	105	000151	000025	000025	157525	3	157525	3	70	2	.039		2	
ULNK0F	CPROD	218	000332	000015	000015	157676	25	157676	25	154	2	.162		2	
USAPUL	CPROD	473	000731	000104	000104	160237	0	160237	0	311	2	.000		2	
WLNK0A	CPROD	877	001555	000066	000066	161170	32	161170	32	584	2	.055		2	
MTML0A	CPROD	118	000166	000023	000023	162745	0	162745	0	153	2	.000		2	
WLNK0C	CPROD	116	000184	000033	000033	163133	3	163133	3	45	2	.032		2	
FUSE0F	CPROD	308	000604	000052	000052	163321	0	163321	0	273	2	.000		2	
PCG000	CPROD	542	001120	000103	000103	164215	0	164215	0	352	3	.000		3	
ERKAL	CPROD	75	000113	000015	000015	165345	0	165345	0	107	3	.000		3	
SAP00E	CPROD	305	000461	000046	000046	165502	0	165502	0	178	3	.000		3	
CUPT00	CPROD	105	000131	000020	000020	166183	3	166183	3	80	3	.037		3	
SKL20	CPROD	1350	002402	000114	000114	171275	23	171275	23	893	3	.026		3	
IGW00H	CPROD	652	001214	000115	000115	173757	0	173757	0	244	3	.000		3	
TGCL0E	CPROD	556	001054	000124	000124	175173	36	175173	36	397	3	.091		3	
PLG00F	CPROD	479	000737	000070	000070	178251	4	178251	4	299	3	.013		3	
IGW10C	CPROD	213	000325	000027	000027	202613	0	202613	0	139	3	.000		3	
LFIL0F	CPROD	90	000140	000021	000021	207767	3	207767	3	71	3	.042		3	
WJ010B	CPROD	46	000056	000017	000017	212367	34	212367	34	44	3	.773		3	
WJ020U	CPROD	225	000341	000026	000026	212445	9	212445	9	144	3	.063		3	
WJ040E	CPROD	164	000244	000016	000016	213112	0	213112	0	92	3	.000		3	
WJ050C	CPROD	55	000067	000020	000020	213360	0	213360	0	39	3	.000		3	
WJ060U	CPROD	1033	002011	000105	000105	160334	33	160334	33	657	13	.050		13	
WJ070F	CPROD	470	000726	000044	000044	170347	5	170347	5	432	13	.012		13	
WJ080B	CPROD	1351	002507	000101	000101	200000	60	200000	60	947	13	.063		13	
WJ090A	CPROD	86	000102	000015	000015	202511	0	202511	0	30	13	.000		13	
WJ100A	CPROD	62	000076	000022	000022	203140	0	203140	0	20	13	.000		13	
IFIL0A	CPROD	2306	004522	000134	000134	203236	1034	203236	1034	1990	13	.520		13	
WJ150H	CPROD	816	001460	000134	000134	210703	64	210703	64	823	13	.102		13	
WJ160B	CPROD	360	000550	000042	000042	210133	0	210133	0	318	13	.000		13	

TOTAL DIRECT STATEMENTS IN THIS SECTION IS 1792.

TOTAL STATEMENTS IN THIS SECTION IS 13624.

THE RATIO OF DIRECT STATEMENTS TO TOTAL STATEMENTS IS .132



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GROUP SUMMARY TABLE FOR K-D BUILD			
GROUP NAME	DIR STAT	TOT STAT	RATIO D/T
REAL TIME CONTROL	11255.	11421.	.985
DATA COLLECTION	221.	4867.	.045
SURVEILLANCE	1592.	19260.	.083
INITIALIZATION	208.	204.	1.000
DCIP DISPLAY CONTR	1119.	6123.	.183
GUIDANCE	1792.	13624.	.132
EDWA II	1041.	1041.	1.000
COMMUNICATIONS	344.	3069.	.111
IC FRIEND OR FOE	165.	1550.	.106
TEST DRIVERS	618.	618.	1.000

## Appendix C. SEARCH BY BOOK OUTPUT

DATE 010678

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N-U BUILD BY JOKK

PROGRAM	COMPUL	SIZE	DEL	SIZE	UCL	LOC	STOR	ORIGIN	DIR	STAT	TOT	STAT	RATIO	D/T	BOOK	NO.
NA1520	CPA010	132		000204		000020		306720		0	47		.000		9	
AC0020	CPA010	89		000131		000021		320005		0	36		.000		9	
AC0020	CPA010	95		000137		000021		320137		0	34		.000		9	
AC0020	CPA010	133		000205		000022		320276		0	41		.000		9	
AC7020	CPA010	86		000126		000016		320503		0	24		.000		9	
AC7120	CPA010	137		000235		000023		320631		0	55		.000		9	
LS0020	CPA010	40		000056		000017		321056		0	41		.000		9	
LS5920	CPA010	407		000827		000042		307335		0	212		.000		9	
LS0020	CPA010	84		000124		000026		321671		0	59		.000		9	
ME1020	CPA010	395		000813		000021		322022		0	124		.000		9	
ME2920	CPA010	317		000475		000025		322656		20	133		.150		9	
NA1120	CPA010	150		000226		000021		323354		0	38		.000		9	
NA1320	CPA010	115		000103		000025		323612		0	44		.000		9	
NA1420	CPA010	505		001005		000031		323775		0	185		.000		9	
ME0220	CPA010	530		001030		000047		325071		0	211		.000		9	
ME0320	CPA010	82		000122		000025		325121		0	26		.000		9	
ME1020	CPA010	357		000345		000032		310171		0	107		.000		9	
ME0020	CPA010	102		000242		000020		325710		0	58		.000		9	
ME3320	CPA010	75		000113		000016		327152		0	21		.000		9	
SE3020	CPA010	370		000302		000035		327205		55	225		.244		9	
LS0020	CPA010	85		000101		000017		330047		0	45		.000		9	
NP7200	CPA010	85		000101		000016		330150		0	42		.000		9	
NP3000	CPA010	85		000125		000021		330251		0	60		.000		9	

TOTAL DIRECT STATEMENTS IN THIS SECTION IS 75.

TOTAL STATEMENTS IN THIS SECTION IS 1868.

THE RATIO OF DIRECT STATEMENTS TO TOTAL STATEMENTS IS .040



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N-6 BUILD BY BOOK

PROGRAM	COMPUL	SIZE	DEC	SIZE	VCI	LOC	STOR	ORIGIN	DIR	STAT	TOT	STAT	RATIO	D/T	BOOK	NO.
UNCLW	CPROD	1033	002011	000105	160334	33	057	050	13							
UNCLW	CPROD	470	000726	000044	170347	5	432	012	13							
UNCLW	CPROD	1321	002507	000101	200000	60	947	063	13							
UNCLW	CPROD	00	000102	000015	202511	0	30	000	13							
UNCLW	CPROD	02	000076	000022	203140	0	20	000	13							
IFLON	CPROD	2300	004522	000134	203236	1034	1990	520	13							
PRISON	CPROD	810	001400	000134	210703	84	823	102	13							
UNCLW	CPROD	300	000550	000042	210133	0	318	000	13							

TOTAL DIRECT STATEMENTS IN THIS SECTION IS 1210.

TOTAL STATEMENTS IN THIS SECTION IS 5217.

THE RATIO OF DIRECT STATEMENTS TO TOTAL STATEMENTS IS .233  
TOTALS 18355 61807 .297

TOTAL STORAGE USED BY MCC SOFTWARE 89009  
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PROGRAM CONSTANTS FROM N6-1D CUKE MAP 54566  
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